

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) Metal complex of the general formula $M(L)_n$, wherein M is metal selected from the transition metals, each L is independently selected and represents a ligand, at least one L is vitamin B₁₂ (cyanocobalamin) or a derivative thereof which is bound through the nitrogen atom of its cyanide group to M, thus, forming a M-NC--[Co] moiety, wherein [Co] represents vitamin B₁₂ or its derivative without cyanide, and wherein n is 1, 2, 3, 4, 5 or 6.
2. (Previously Presented) Metal complex as claimed in claim 1, wherein M is technetium, ruthenium, rhodium, rhenium, palladium, platinum, iridium or copper.
3. (Previously Presented) Metal complex as claimed in claim 1, wherein M is a radioisotope of rhenium or technetium.
4. (Previously Presented) Metal complex as claimed in claim 1, wherein n is 4, 5 or 6 and three occurrences of L are carbonyl groups (COs).
5. (Previously Presented) Metal complex as claimed in claim 18, wherein the bidentate ligand comprises two aliphatic and aromatic amine parts, two aliphatic or aromatic amine parts, or one aliphatic or aromatic amine part and an anionic group.
6. (Previously Presented) Metal complex as claimed in claim 18, wherein the bidentate ligand is selected from α -amino acids or derivatives of picolinic acid.
7. (Previously Presented) Metal complex as claimed in claim 1, wherein M is platinum, and L is independently selected from ligands containing N, S, P, O, C as the metal binding atom or any other donor with one non-binding electron pair available for coordination to the metal.
8. (Previously Presented) Metal complex as claimed in claim 4, wherein an occurrence of L is a bidentate ligand coupled to a molecule selected from the group consisting of fluorescing agents, optical dyes, NIR dyes, phosphorescent dyes, and pharmacophores.

9. (Previously Presented) Metal complex as claimed in claim 8, wherein the bidentate ligand is coupled to a fluorescing agent selected from the group consisting of fluoresceine, pyrene, acridine, and dansyl.

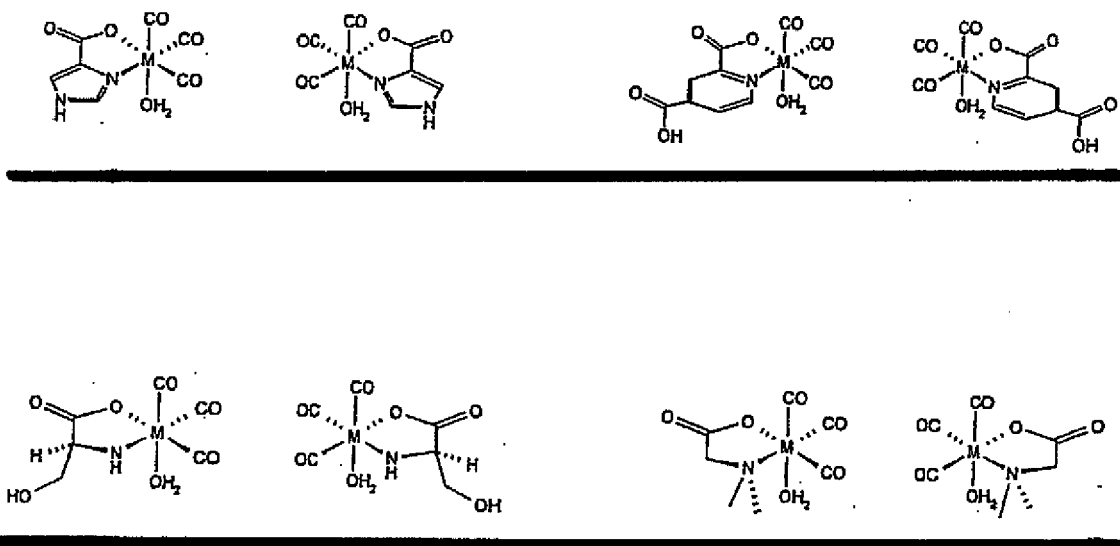
10. (Previously Presented) Metal complex as claimed in claim 8, wherein the bidentate ligand is coupled to a pharmacophores selected from the group consisting of tamoxifen, methotrexate and cyclophosphamid.

11. (Cancelled)

12. (Previously Presented) Process for preparing a metal complex, comprising:

mixing vitamin B₁₂ or a derivative thereof with a precursor complex of the general formula $M(L)_{n-1}L'$, wherein M is a transition metal, n is 2, 3, 4, 5 or 6, L' is a ligand to be substituted by the vitamin B₁₂ or the derivative thereof, and each L is independently selected and is a ligand.

13. (Currently Amended) Precursor complex for use in the preparation of metal complex of claim 1 and **being selected from the group consisting of:**



~~having the general formula $M(L)_nL'$, wherein M is a transition metal, n is 2, 3, 4, 5 or 6, L' is a ligand to be and one of the ligands attached thereto is capable of being substituted by vitamin B₁₂, and each L is independently selected and is a ligand.~~

14. (Cancelled)

15. (Currently Amended) Use of a metal complex of claim 1 in radiodiagnostics, chemotherapy or radionuclide therapy comprising the step of administering the metal complex of claim 1 to a host in need of such diagnostics or therapy.

16. (Previously Presented) Metal complex as claimed in claim 1, wherein M is a catalytically active metal.

17. (Original) Metal complex as claimed in claim 3, wherein M is ^{99m}Tc, ¹⁸⁸Re, or ¹⁸⁶Re.

18. (Original) Metal complex as claimed in claim 4, wherein an occurrence of L is a bidentate ligand.

19. (Original) Metal complex as claimed in claim 4, wherein an occurrence of L is a bidentate ligand coupled to a metal complex, a biologically active molecule or a fluorescing agent.

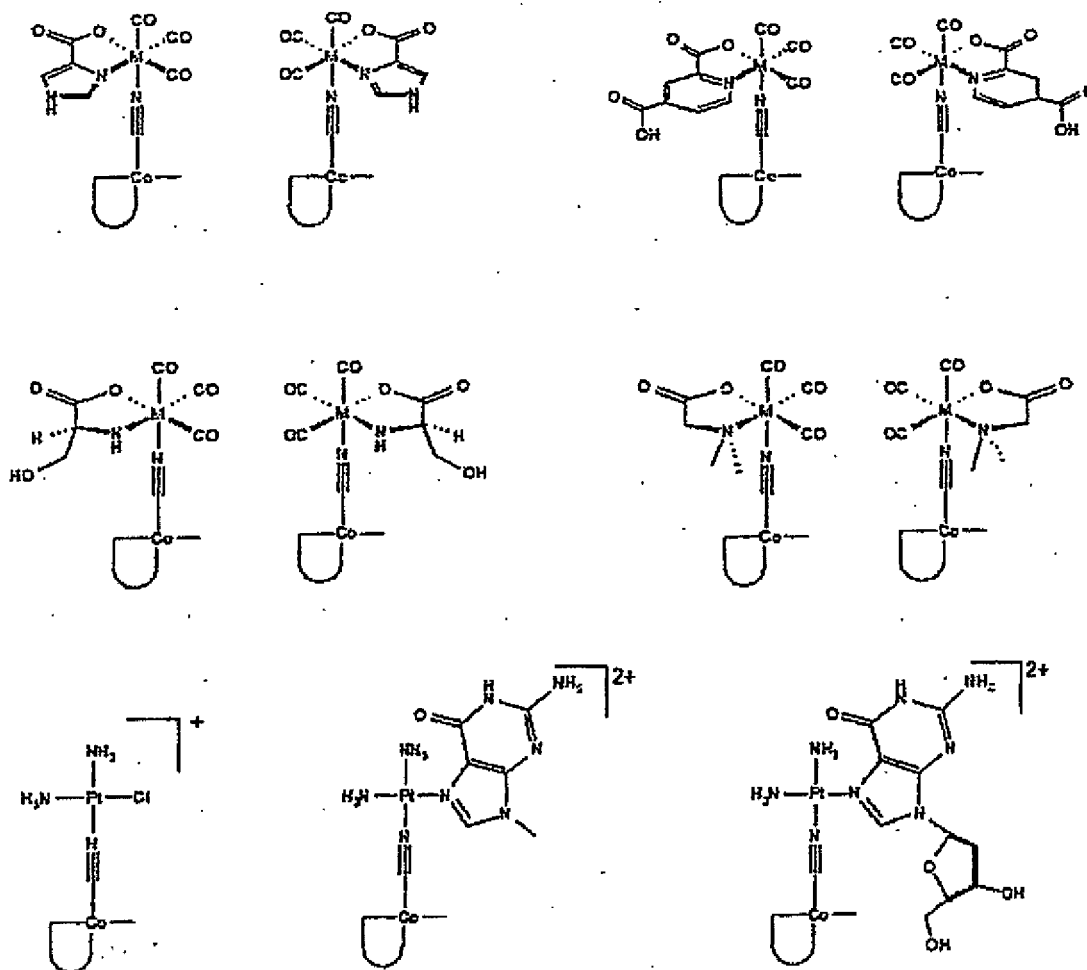
20. (Original) Metal complex as claimed in claim 5, wherein the bidentate ligand comprises one aliphatic or aromatic amine part and an anionic group, wherein the anionic group is a carboxylate, a thiolate or a hydroxylate.

21. (Original) Metal complex as claimed in claim 1, wherein M is platinum, L is independently selected from:

ligands containing N, S, P, O, C as the metal binding atom or any other donor with one non-binding electron pair available for coordination to the metal; and

ligands containing N, S, P, O, C as the metal binding atom or any other donor with one non-binding electron pair available for coordination to the metal coupled to another metal complex, a biologically active molecule, or a fluorescing molecule.

22. (Original) Metal complex as claimed in claim 1 having a structural formula selected from the group consisting of:



23. (Cancelled)

24. (New) The process of claim 12 wherein the precursor complex is cis-diamminedichloroplatinum(II).

25. (New) Precursor complex as claimed in claim 13, wherein M is technetium, rhodium, rhenium, palladium, or platinum.

26. (New) Metal complex as claimed in claim 1, wherein M is technetium, rhodium, rhenium, palladium, or platinum.